Lance C. Labun, Ph.D.

Simula Technologies, Inc.
10016 S. 51st St
Phoenix, AZ 85044 USA
Voice: 480-753-2088, facsimile: 480 893-8643, E-mail labun@sti.simula.com

EXPERIENCE:

Simula Technologies, Inc. – As Manager Research and Development, Dr. Labun is responsible for two technology areas: materials and crash safety technology. The materials area includes polymer development, opaque armor development, and transparent armor development. The crash safety area includes mechanical design and development. The crash safety group is currently primarily focused on inflatable restraints.

Dr. Labun was recruited by Simula in 1990 as a senior technical contributor in the engineering department of Simula Government Products. In that role, he applied his fundamental physics background and understanding of materials to a wide range of human crash safety products. He has been instrumental in bridging the gap between traditional mechanical engineering disciplines used in detailed product design and the biomechanics disciplines used in analyzing occupant kinematics in crashes. He has made major contributions in the areas of crashworthy seating, restraint systems, airbags, emergency bailout parachutes, and techniques for assessing and predicting occupant crash injury. Dr. Labun was employed at Simula Government Products from 1990 through 1997 with increasing technical responsibility. In 1997 he was selected as group manager for Safety Technology at Simula Technologies, Inc. In this role, he performed the function of chief engineer for all emerging crash safety technologies within the Simula family of companies. His duties were expanded to include the materials area January, 2001. Dr. Labun is the holder of two U.S. patents.

EDUCATION:

1976 - Ph.D., Metallurgical Engineering, University of Illinois, Urbana-Champaign, IL
1973 - M.S., Metallurgical Engineering, University of Illinois, Urbana-Champaign, IL
1970 - B.S., Physics with High Honor, Stevens Institute of Technology, Hoboken, NJ

PUBLICATIONS:

The Effect of Impact Pulse Shape on Peak Lumbar Force and Seat Stroke, American Helicopter Society 57th Annual Forum, Washington DC. May 2001.*

Evaluating and Certifying Cabin Safety Enhancements, Labun, L.C., Coltman, J.W., Fire and Cabin Safety Research Conference, Atlantic City, New Jersey, November, 1998.

Development of an Automatic Energy Absorber System for Crashworthy Helicopter Seats, TR97256, Simula Safety Systems, Inc., Tempe, AZ; Naval Air Warfare Center, Aircraft Division, Patuxent River, MD 20670, February 1998.

Helicopter Crashworthiness, Crashworthiness Focus Day, 34th Annual SAFE Symposium, Reno NV, October 1996. (Presentation)

Simula Sealed Parachute, 34th Annual SAFE Symposium, Reno NV, October 1996.*

A Process for Mine Blast Survivability Analysis and Design, TARDEC Combat Vehicle Survivability Symposium, Monterey CA, March 1995.

A Third Generation Energy Absorber for Crash Attenuating Helicopter Seating, American Helicopter Society 50th Annual Forum, Washington DC. May 1994.*

Development of an Environmentally Sealed, Bailout Parachute, TR-91109, Simula Inc., Phoenix, Arizona; Naval Air Warfare Center - Weapons Division, China Lake, California 93555, June 26, 1992.*

Development of an Inertia Reel Calibration Tester, TR-92004, Simula Inc., Phoenix, Arizona; Aviation Applied Technology Directorate, U.S. Army Aviation Systems Command, Fort Eustis, Virginia 23604, June 2, 1992.

Development of an Occupant Restraint Device for Wheelchair Users on School Buses, TR-91007, Simula Inc., Phoenix, Arizona; Transportation Systems Center, Department of Transportation, Cambridge, Massachusetts 02142, March 6, 1991.

?? Co-author

PATENTS:
US 6,224,019 B1, Parachute Landing Velocity Attenuator, May 1, 2001. Co-inventor.

US 5,586,615, Vacuum Packaged Evacuation Slide, December 24, 1996. Co-inventor.

AWARDS:
American Helicopter Society, Harry T. Jensen Award 2001, awarded to the NRTC/RITA Crash Safety & Navy Water Impact SBIR Teams. Team-member.

Polymer Headlamp, Materials Engineering magazine Grand Award Winner, 1981. Team Member.